## 1673 Rec'd PCT/FTO 24 JAN 2006

PTO-1390 (Rev. 07-2005)
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## TRANSMITTAL LETTER TO THE UNITED STATES

ATTORNEY'S DOCKET NUMBER 449122086300 -

CONCERNING A SUBMISSION UNDER 35 U.S.C. 371	U.S. ARP 11 5 6 5 6 7 4 1.5)	
INTERNATIONAL APPLICATION NO. INTERNATIONAL FILING DATE	PRIORITY DATE CLAIMED	
PCT/EP2004/051590 23 July 2004 TITLE OF INVENTION	25 July 2003	
RAY TRACING IN DISCONTINUOUS MULTIMODE CHANNEL WAVEGU APPLICANT(S) FOR DO/EO/U\$	IIDES	
Thomas BIERHOFF		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
1. x This is a FIRST submission of items concerning a submission under 35 U.S.C. 371.		
2 This is a SECOND or SUBSEQUENT submission of items concerning a submission under 35 U.S.C. 371.		
This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.		
4. The US has been elected (Article 31).		
5. A copy of the International Application as filed (35 U.S.C. 371 (c)(2))		
a. x is attached hereto (required only if not communicated by the International Bureau).		
b. X has been communicated by the International Bureau.		
c. is not required, as the application was filed in the United States Receiving Office (RO/US).		
6. An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).		
a. x is attached hereto.		
b. has been previously submitted under 35 U.S.C. 154(d)(4).		
7. Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))		
a. are attached hereto (required only if not communicated by the International Bureau).		
b. have been communicated by the International Bureau.		
c. have not been made; however, the time limit for making such amendments has NOT expired.		
d. have not been made and will not be made.		
8. An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).		
9. An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).		
An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).		
Items 11 to 20 below concern document(s) or information included:		
11. An Information Disclosure Statement under 37 CFR 1.97 and 1.98.		
12. An assignment document for recording. A separate cover sheet in compli	iance with 37 CFR 3.28 and 3.31 is included.	
13. x A preliminary amendment.		
14. x An Application Data Sheet under 37 CFR 1.76.		
15. x A substitute specification.		
16. A power of attorney and/or change of address letter.		
17. A computer-readable form of the sequence listing in accordance with P	CT Rule 13ter.2 and 37 CFR 1.821 – 1.825.	
18. A second copy of the published International Application under 35 U.S.	C. 154(d)(4).	
19. A second copy of the English language translation of the international a	application under 35 U.S.C. 154(d)(4).	
TWE C		

## IAP20 Rec'd PCT/PTO 24 JAN 2006

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U. S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. INTERNATIONAL APPLICATION NO. ATTORNEY'S DOCKET NUMBER 15656/4 PCT/EP2004/051590 449122086300 International Search Report and Written Opinion (12 pages) Other items or information: The following fees have been submitted **CALCULATIONS PTO USEONLY** 300.00 21. x Examination fee (37 CFR 1.492(c)) If the written opinion prepared by ISA/US or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) ...... 200.00 All other situations Search fee (37 CFR 1.492(b)) Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority..... \$ 400.00 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the US by the IB .......\$400 All other situations 900.00 TOTAL OF 21, 22 and 23 = Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) (37 CFR 1.492(j)). The fee is \$250 for each additional 50 sheets of paper or fraction thereof. Number of each additional 50 or fraction RATE Total Sheets Extra Sheets thereof (round up to a whole number) 16 - 100 = x \$250.00 \$ Surcharge of \$130 for furnishing any of the search fee, examination fee, or the oath or declaration \$ after the date of commencement of the national stage (37 CFR 1.492(h)). NUMBER EXTRA RATE **NUMBER FILED** CLAIMS 0.00 Total claims 7 - 20 = x 0.00 Independent claims 2 - 3 = x MULTIPLE DEPENDENT CLAIM(S) (if applicable) TOTAL OF ABOVE CALCULATIONS = \$ 900.00 Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by 1/2. SUBTOTAL = \$ 900.00 Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest \$ claimed priority date (37 CFR 1.492(i)). 900.00 **TOTAL NATIONAL FEE:** \$ Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied \$ by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property TOTAL FEES ENCLOSED 900.00 Amount to be \$ refunded: Amount to be \$ charged

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a A check in the amount of \$ to co	ver the above fees is enclosed.	
b. x Please charge my Deposit Account No. 03-1952 A duplicate copy of this sheet is enclosed.	in the amount of \$ 900.00 to cover the above fees.	
c. X The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 03-1952 . A duplicate copy of this sheet is enclosed.		
d. Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card Information should not be included on this form. Provide credit card information and authorization on PTO-2038		
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed an granted to restore the international Application to pending status.		
	1: 55	
SEND ALL CORRESPONDENCE TO:	SIGNATURE (A)	
	Kevin R. Spivak	
25227	NAME	
CUSTOMER NUMBER: 25227	43,148	
	REGISTRATION NUMBER	
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